

2013 MAY 25 RECD 191038

SEARCH REQUEST FORM Scientific and Technical Information Center - EIC2800

Rev. 1/26/2006 This is an experimental format -- Please give suggestions or comments to Jeff Harrison, JEF-4B68, 22511.

Date 5/23/06 Serial # 101646897 Priority Application Date 3/6/02

Your Name M. Harrison Examiner # _____

AU 2822 Phone 272-1838 Room 5A30

In what format would you like your results? Paper is the default. PAPER DISK EMAIL
If submitting more than one search request form, please prioritize the searches in order of need.

Where have you searched so far on this case?

Circle: USPT DWPI EPO Abs JPO Abs IBM TDB
Other: _____

What relevant art have you found so far? Please attach citations or Information Disclosure Statements.

What types of references would you like? Please checkmark:

Primary Refs _____ Nonpatent Literature _____ Teaching Refs _____
Secondary Refs _____ Foreign Patents _____ Other _____

Is this a "Fast & Focused Search" request? (Circle One) YES NO

A "Fast & Focused Search" is completed in 2-3 hours (maximum). The search must be on a very specific topic and meet certain criteria. The criteria are posted in EIC2800 and on the STIC NPL Web Page at <http://uspto-a-patr-2/siraapps/stic/npl/nplsearch.htm>

What is the topic, such as the novelty, motivation, utility, or other specific facets defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, registry numbers, definitions, structures, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract and pertinent claims.

Claims 170-179 & 262-272

Problem: see pages 2 & 3

Solution: " " 3-7

Thinned die encapsulated by polymer layers

US 6,717,245 - 6,607,976
6,013,534 - 6,620,731

Staff Use Only

Searcher: HARRISON

Searcher Phone: 22511

Searcher Location: STIC-EIC2800, JEF-4B68

Date Searcher Picked Up: 5-30-06

Date Completed: 30

Searcher Prep/Rev Time: 40

Online Time: 125

Type of Search

Structure (#) _____

Bibliographic X

Litigation _____

Fulltext _____

Patent Family _____

Other DECI

Vendors

STN X

Dialog X

Questel/Orbit _____

Lexis-Nexis _____

WWW/Internet _____

Other _____

31may06 08:09:17 User259284 Session D3655.2

SYSTEM:OS - DIALOG OneSearch

File 23:CSA Technology Research Database 1963-2006/May
 File 2:INSPEC 1898-2006/May W3
 File 6:NTIS 1964-2006/May W3
 File 8:Ei Compendex(R) 1970-2006/May W3
 File 14:Mechanical and Transport Engineer Abstract 1966-2006/May
 File 25:Weldasearch 19662006/May
 File 31:World Surface Coatings Abs 1976-2006/Jun
 File 33:Aluminium Industry Abstracts 1966-2006/May
 File 34:SciSearch(R) Cited Ref Sci 1990-2006/May W3
 File 35:Dissertation Abs Online 1861-2006/May
 File 36:MetalBase 1965-20060529
 File 46:Corrosion Abstracts 1966-2006/May
 File 56:Computer and Information Systems Abstracts 1966-2006/May
 File 57:Electronics & Communications Abstracts 1966-2006/May
 File 60:ANTE: Abstracts in New Tech & Engineer 1966-2006/May
 File 61:Civil Engineering Abstracts. 1966-2006/May
 File 63:Transport Res(TRIS) 1970-2006/Apr
 File 64:Environmental Engineering Abstracts 1966-2006/May
 File 65:Inside Conferences 1993-2006/May 30
 File 68:Solid State & Superconductivity Abstracts 1966-2006/May
 File 81:MIRA - Motor Industry Research 2001-2006/Mar
 File 94:JICST-EPlus 1985-2006/Feb W4
 File 95:TEME-Technology & Management 1989-2006/May W4
 File 96:FLUIDEX 1972-2006/May
 File 99:Wilson Appl. Sci & Tech Abs 1983-2006/Apr
 File 103:Energy SciTec 1974-2006/Apr B2
 File 104:AeroBase 1999-2006/Mar
 File 118:ICONDA-Intl Construction 1976-2006/Apr
 File 134:Earthquake Engineering Abstracts 1966-2006/May
 File 144:Pascal 1973-2006/May W1
 File 239:Mathsci 1940-2006/Jul
 File 240:PAPERCHEM 1967-2006/May W4
 File 248:PIRA 1975-2006/Apr W3
 File 293:Engineered Materials Abstracts 1966-2006/May
 File 315:ChemEng & Biotec Abs 1970-2006/May
 File 323:RAPRA Rubber & Plastics 1972-2006/Apr
 File 335:Ceramic Abstracts/World Ceramics Abstracts 1966-2006/May
 File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec

Set	Items	Description
S1	322	(6 OR SIX) (W)SIDES
S2	251362	(COMPLET???? OR FULL???? OR 100 OR ENTIRE???? OR ALL OR ALLOVER? OR OVERALL? OR TOTAL??) (2N) (SURROUND???? OR AROUND OR ENCAPSUL???? OR SEAL???? OR PROTECT???? OR COVER???? OR ISOLAT???? OR INSULA????)
S3	3	1AND2
S4	2	RD S3 (unique items)
S5	9160	S1:S2 AND SEMICONDUCT????????
S6	5342	S1:S2 AND PACKAG??????
S7	1746	S1:S2 AND INTERCONNECT??????
S8	3114	S1:S2 AND (BUMPS OR BALLS OR PILLARS OR POSTS OR PADS OR CONTACTS OR TERMINALS)
S9	892	S1:S2 AND THINN??????
S10	11743	S1:S2 AND SURFACES
S11	1902	S1:S2 AND SIDES
S12	4653	S1:S2 AND TOP
S13	2668	S1:S2 AND BOTTOM
S14	175	S1:S2 AND TOPS
S15	164	S1:S2 AND BOTTOMS
S16	37	S1:S2 AND BGA? ?
S17	0	S1:S2 AND BALLGRID?
S18	50	S1:S2 AND BALL()GRID????
S19	5087	S1:S2 AND ARRAY?????
S20	2678	S1:S2 AND (DIE OR DIES OR DICE OR DICES OR DICED OR DICING?? OR SINGLAT?????)
S21	2951	S1:S2 AND (CSP? ? OR CHIP?????? OR MICROCHIP? OR CLP? ?)
S22	1923	S1:S2 AND (WAFER?????? OR WLP? ? OR WSP? ?)
S23	4363	S1:S2 AND (INTEGRATED())CIRCUIT?? OR ICS)
S24	1237	S1:S2 AND IC
S25	11233	S1:S2 AND (ULSI OR VLSI OR INTEGRATED OR MONOLITH??????)
S26	893	S1:S2 AND (RESIN??? OR PLASTIC??? OR POLYMER???? OR PHOTOPOLYMER???? OR COPOLYMER???? OR ELASTOMER???? OR THERMOSET???? OR THERMOPLASTIC???) (2N) (LAYERS OR FILMS OR MULTILAYER? OR BILAYER? OR TRILAYER? OR LAYERED OR LAYERING? OR SUNLAYER? OR OVERLAYER?)
S27	73	S1:S2 AND PARYLEN?
S28	119	S1:S2 AND PHOTOPOLYMER?
S29	4	S1:S2 AND PHOTO()POLYMER???

S30 22 S1:S2 AND (PHOTOSENS? OR PHOTO) (1N) (POLYMER??? OR RESIST OR
 RESISTS OR ORGANIC)
 S31 2613 S1:S2 AND CONFORM?????
 S32 2107 S1:S2 AND EDGES
 S33 5726 S1:S2 AND EDGE??
 S34 4976 S1:S2 AND MULTI
 S35 9450 S1:S2 AND MULTIPLE
 S36 326 S1:S2 AND (RESIN??? OR PLASTIC??? OR POLYMER??? OR PHOTOPOLYMER??? OR COPOLYMER????? OR
 ELASTOMER???? OR THERMOSET???? OR THERMOPLASTIC??? OR ORGANIC? ? OR PHOTORESIST? ?) (2N) (STACK????? OR SANDWICH????? OR
 LAMINA?????)
 S37 999 S1:S2 AND (THIN OR THINN????? OR ULTRATHIN? OR SUPERTHIN? OR THICK????? OR REDUCED OR
 RECESS?????) (2N) (DIE OR CHIP OR MICROCHIP OR SEMICONDUCT????? OR SUBSTRATE? ? OR COMPONENT? ?)
 S38 1 S1:S2 AND (RESIN??? OR PLASTIC??? OR POLYMER??? OR PHOTOPOLYMER??? OR COPOLYMER????? OR
 ELASTOMER???? OR THERMOSET???? OR THERMOPLASTIC??? (2N) (SUBLAYER?)
 S39 64 CONTACT() BUMPS
 S40 34 THINNED() DIE
 S41 6152 POLYMER() LAYERS
 S42 460 SEMICONDUCT?????() COMPONENT
 S43 67698 S5:S38
 S44 0 39AND43
 S45 0 40AND43
 S46 55 41AND43
 S47 1 42AND43
 S48 1 S47 NOT S3
 S49 55 S46 NOT (S47 OR S3)
 S50 0 S49 AND S8:S9
 S51 55 S49 AND S16:S33
 S52 55 S49 AND S34:S42
 S53 55 S51:S52
 S54 17 S53/2002-2006
 S55 38 S53 NOT S54
 S56 12 S55 AND (SEMICONDUCT????? OR THINN????? OR COMPONENT? ? OR CONTACT? ? OR BUMP??)
 S57 22300 (POLYMER??? OR PARYLEN????? OR PHOTOPOLYMER????) (3N) (COVER????? OR ENCAPSUL????? OR COMPLETELY OR
 FULLY OR TOTALLY OR EDGES)
 S58 26 S55 NOT S56
 S59 1 S57 AND S58
 S60 25 S58 NOT S59
 S61 322 S1 AND S5:S54
 S62 0 S1 AND S57
 S63 204 RD S61 (unique items)
 S64 415 (6 OR SIX)() SURFACES
 S65 253 RD S64 (unique items)
 S66 457 S63 OR S65
 S67 455 S66 NOT S3
 S68 1 S67 AND THINN?????
 S69 22 S67 AND LAYERS
 S70 14 S67 AND EDGES
 S71 3 S67 AND ENCAPSUL?????
 S72 17 S67 AND (POLYMER??? OR HOMOPOLYMER???? OR ENCAPSUL????? OR PARYLEN????? OR PHOTOPOLYMER? OR
 PHOTORESIST? ?)
 S73 42 S67 AND SEMICONDUCT??????
 S74 17 S67 AND (DIE OR DIES OR CHIP????? OR MICROCHIP? ? OR CSP? ?)
 S75 27 S67 AND PACKAG?????
 S76 119 S68:S75
 S77 81 S76 NOT S76/2002-2006
 S78 0 69AND70
 S79 0 69AND72
 S80 10 69AND73
 S81 0 69AND74
 S82 1 69AND75
 S83 0 72AND73
 S84 3 72AND74
 S85 1 72AND75
 S86 1 73AND74
 S87 2 73AND75
 S88 18 S68 OR S71 OR S78:S87
 S89 68 S77 NOT S88
 S90 256 SIX() SIDES
 S91 509 SIX() SIDED
 S92 204 SIX() SURFACES
 S93 1642 (FULL OR FULLY OR COMPLETE OR COMPLETELY OR TOTAL OR TOTALLY OR ENTIRELY OR ENTIRE) (W) ENCAPSUL??????
 S94 51 "ALL"() (6 OR SIX) (W) SIDES
 S95 18 "ALL"() (6 OR SIX) (W) SURFACES
 S96 962 S90:S92
 S97 0 93AND96
 S98 69 S94:S95

S99 42 RD S98 (unique items)
 S100 120 S90:S99 AND SEMICONDUCT?????
 S101 100 S90:S99 AND INTERCONNECT?????
 S102 14 S90:S99 AND (BUMPS OR BALLS OR BGA? ? OR CSP? ?)
 S103 3 S90:S99 AND HERMETIC?????
 S104 1649 S90:S99 AND ENCAPSUL?????
 S105 510 S1:S2 AND HERMETIC?????
 S106 9 100AND101
 S107 104 100AND104
 S108 71 101AND104
 S109 48 S105 AND SEMICONDUCT?????
 S110 24 S102:S103 OR S106
 S111 17 RD S110 (unique items)
 S112 14 S90:S105 AND THINN?????
 S113 8 RD S112 (unique items)
 S114 20 S90:S105 AND BUMPS
 S115 172 S90:S105 AND LAYERS
 S116 1 S114 AND S115
 S117 38 S114:S115 AND (CSP? ? OR CHIP? ? OR MICROCHIP? OR CHIPSCAL? OR CHIPLEVEL? OR WAFER?????)
 S118 37 S117 NOT S116
 S119 18 RD S118 (unique items)
 S120 284 AU=(GRIEVE, A? OR CAPOTE, M? OR CAPOTE, A? OR LENOS, H? OR SORIANO, A?)
 S121 691 AU=(GRIEVE A? OR CAPOTE M? OR CAPOTE A? OR LENOS H? OR SORIANO A?)
 S122 957 S120:S121
 S123 31 S122/2000
 S124 41 S122/2001
 S125 41 S122/2002
 S126 0 S123:S125 AND THINN?????
 S127 0 S123:S125 AND LAYERS
 S128 2 S123:S125 AND EDGE? ?
 S129 14 S123:S125 AND ENCAPSUL?
 S130 0 S123:S125 AND HERMETIC?
 S131 1 S123:S125 AND SEAL????
 S132 5 S123:S125 AND SURFACES
 S133 0 S123:S125 AND SIDES
 S134 17 S128:S133
 S135 10 RD S134 (unique items)
 S136 185 AGUILA
 S137 536 CS=AGUILA?
 S138 2 PA=AGUILA?
 S139 1 S136:S138 AND THINN?????
 S140 17 S136:S138 AND ENCAPSULA?????
 S141 1 S136:S138 AND SEAL????
 S142 1 S136:S138 AND HERMETIC????
 S143 20 S139:S142
 S144 14 RD S143 (unique items)
 S145 10 S144 NOT S135
 S146 25 CR=CAPOTE MA?
 S147 0 S146/2000-2002
 S148 74 AU=GILILEO K?
 S149 0 AU=GILILEO B?
 S150 8 AU=BLUMEL D?
 S151 245 AU=MOUNTAIN D?
 S152 3 AU=MCLLENAGHAN J?
 S153 3401 AU=WAKABAYASHI T?
 S154 978 AU=WAKABAYASHI, T?
 S155 14 AU=MCLLENAGHAN, J?
 S156 225 AU=MOUNTAIN, D?
 S157 19 AU=BLUMEL, D?
 S158 0 AU=GILILEO, B?
 S159 295 AU=GILILEO, K?
 S160 5079 S148:S159
 S161 252 S160/2001
 S162 217 S160/2002
 S163 233 S160/2000
 S164 338 S160/1999
 S165 286 S160/1998
 S166 356 S160/1997
 S167 1682 S161:S166
 S168 8 S167 AND THINN????
 S169 39 S167 AND ENCAPSULA????
 S170 1 S167 AND BUMPS
 S171 9 S167 AND HERMETIC????
 S172 57 S168:S171
 S173 34 RD S172 (unique items)
 S174 26 S173 AND (SEMICONDUCT????? OR CHIP????? OR CSP? ? OR WAFER????? OR DICE?? OR DIE OR DIES OR DICING??

----- 10/646,897

FILE 'REGISTRY' ENTERED AT 12:06:38 ON 31 MAY 2006

L1 13 SEA ABB=ON PLU=ON PARYLEN?

FILE 'HCAPLUS' ENTERED AT 12:06:44 ON 31 MAY 2006

L2 2227 SEA ABB=ON PLU=ON L1 OR PARYLEN?
L3 2228 SEA ABB=ON PLU=ON L2 OR ?PARYLEN?
L4 21 SEA ABB=ON PLU=ON L3 AND THINN?
L5 93 SEA ABB=ON PLU=ON L3 AND ENCAPSUL?
L6 157 SEA ABB=ON PLU=ON L3 AND (MULTILAYER? OR MULTI LAYER? OR
?LAYERED OR ?LAYERING OR BILAYER? OR TRILAYER? OR (BI OR
TRI) (W) LAYER?)
L7 23 SEA ABB=ON PLU=ON L3 AND (TWO OR DOUBLE) (2W)? LAYER?
L8 257 SEA ABB=ON PLU=ON (L5 OR L6 OR L7)
L9 5 SEA ABB=ON PLU=ON L4 AND L8
D ALL HITSTR TOT

FILE 'STNGUIDE' ENTERED AT 12:09:04 ON 31 MAY 2006

FILE 'HCAPLUS' ENTERED AT 12:10:22 ON 31 MAY 2006

L10 0 SEA ABB=ON PLU=ON L3 AND PREENCAP?

FILE 'HCAPLUS' ENTERED AT 12:10:26 ON 31 MAY 2006

L11 0 SEA ABB=ON PLU=ON L3 AND PRE ENCAP?
L12 206 SEA ABB=ON PLU=ON L3 AND (CSP OR CHIP OR MICROCHIP? OR
WAFER? OR CHIP#### OR SINGULAT? OR DIE OR DICE#### OR DICING)
L13 37 SEA ABB=ON PLU=ON (L4 OR L5 OR L6 OR L7) AND L12
L14 36 SEA ABB=ON PLU=ON L13 NOT L9
L15 21 SEA ABB=ON PLU=ON L14 AND (?CONNECT? OR ?CONTACT? OR BGA OR
?TERMINAL? OR BALL OR BOND#### OR ARRAY? OR PAD OR BOND PAD?)
L16 6 SEA ABB=ON PLU=ON L14 AND (HERMETIC? OR COMPLETE? OR ENTIRE?
OR FULLY OR TOTAL##)
L17 5 SEA ABB=ON PLU=ON L14 AND (SIDES OR SURFACES)
L18 24 SEA ABB=ON PLU=ON (L15 OR L16 OR L17)
D ALL HITSTR TOT

CAS/STN FILE 'WPIX' ENTERED AT 16:38:07 ON 30 MAY 2006

L1 5 SEA ABB=ON PLU=ON (US6717245 OR US6607970 OR US6013534 OR US6620731 OR US6228678)/PN
 L2 SEL PLU=ON L1 1- PN : 20 TERMS

FILE 'DPCI' ENTERED AT 16:38:26 ON 30 MAY 2006

L3 82 SEA ABB=ON PLU=ON L2/PN.D
 L4 SEL PLU=ON L3 1- PRN : 120 TERMS

FILE 'WPIX, JAPIO, HCAPLUS' ENTERED AT 16:39:02 ON 30 MAY 2006

L5 221 SEA ABB=ON PLU=ON L4
 L6 26 SEA ABB=ON PLU=ON L5 AND ?THINN?
 L7 1 SEA ABB=ON PLU=ON L5 AND ULTRATHIN?
 L8 0 SEA ABB=ON PLU=ON L5 AND MICROTHIN?
 L9 36 SEA ABB=ON PLU=ON L5 AND THIN
 L10 1 SEA ABB=ON PLU=ON L5 AND TOTAL#####
 L11 3 SEA ABB=ON PLU=ON L5 AND FULL####
 L12 7 SEA ABB=ON PLU=ON L5 AND COMPLET####
 L13 18 SEA ABB=ON PLU=ON L5 AND EDGES
 L14 20 SEA ABB=ON PLU=ON L5 AND EDG###
 L15 80 SEA ABB=ON PLU=ON L5 AND (?POLYMER? OR ?PARYLEN?)
 L16 9 SEA ABB=ON PLU=ON L5 AND SIDES
 L17 27 SEA ABB=ON PLU=ON L5 AND SURFACES
 L18 47 SEA ABB=ON PLU=ON L5 AND (6 OR SIX OR SIXTH OR 6TH)
 L19 179 SEA ABB=ON PLU=ON L5 AND (DIE OR DICE OR SINGULAT? OR ?WAFER? OR ?CHIP? OR CSP OR WSP)
 L20 13 SEA ABB=ON PLU=ON L5 AND (DICED OR DICING)
 L21 25 SEA ABB=ON PLU=ON L5 AND (?ENCAPSUL?)
 L22 124 SEA ABB=ON PLU=ON L5 AND (CONTACTS OR TERMINALS OR BALLS OR BUMPS OR PILLARS OR PADS)
 L23 22 SEA ABB=ON PLU=ON L5 AND (BURN#### OR TEST##### OR INSPECT#####)
 L24 51 SEA ABB=ON PLU=ON (L6 OR L7 OR L8 OR L9)
 L25 47 SEA ABB=ON PLU=ON (L10 OR L11 OR L12 OR L13 OR L14 OR L15 OR L16 OR L17 OR L18 OR L19
 OR L20 OR L21 OR L22 OR L23) AND L24
 L26 44 SEA ABB=ON PLU=ON L18 AND (L19 OR L20 OR L21 OR L22 OR L23)
 L27 34 SEA ABB=ON PLU=ON L18 AND (L6 OR L7 OR L8 OR L9 OR L10 OR L11 OR L12 OR L13 OR L14 OR
 L15 OR L16 OR L17)
 L28 21 SEA ABB=ON PLU=ON L25 AND L26
 L29 21 SEA ABB=ON PLU=ON L25 AND L27
 L30 32 SEA ABB=ON PLU=ON L26 AND L27
 L31 44 SEA ABB=ON PLU=ON L28 OR L29 OR L30 OR L6
 L32 28 SEA ABB=ON PLU=ON L31 AND PRY>2001
 L33 20 SEA ABB=ON PLU=ON L31 AND (2000 OR 2001 OR 1999 OR 1998 OR 1997 OR 1996 OR 1995 OR 1994
 OR 1993)/PRY
 L34 16 SEA ABB=ON PLU=ON L31 NOT L32
 L35 20 SEA ABB=ON PLU=ON L33 OR L34
 L36 SEL PLU=ON L35 1- IC RN : 38 TERMS
 L37 958559 SEA ABB=ON PLU=ON L36
 L38 20 SEA ABB=ON PLU=ON L35 AND L37

FILE 'STNGUIDE' ENTERED AT 16:50:53 ON 30 MAY 2006

FILE 'WPIX, JAPIO, HCAPLUS' ENTERED AT 16:51:59 ON 30 MAY 2006

L39 36 SEA ABB=ON PLU=ON L18 NOT L38
 L40 28 SEA ABB=ON PLU=ON L39 AND PRY>2001
 L41 8 SEA ABB=ON PLU=ON L39 NOT L40
 L42 SEL PLU=ON L41 1- IC RN : 41 TERMS
 L43 565374 SEA ABB=ON PLU=ON L42
 L44 8 SEA ABB=ON PLU=ON L41 AND L43

FILE 'STNGUIDE' ENTERED AT 16:53:59 ON 30 MAY 2006

FILE 'WPIX, JAPIO, HCAPLUS' ENTERED AT 16:55:09 ON 30 MAY 2006

L45 193 SEA ABB=ON PLU=ON L5 NOT (L35 OR L44)
 L46 93 SEA ABB=ON PLU=ON L45 AND 2001/PRY,PY
 L47 49 SEA ABB=ON PLU=ON L45 AND 2000/PRY,PY
 L48 113 SEA ABB=ON PLU=ON L46 OR L47
 L49 10 SEA ABB=ON PLU=ON L48 AND ?ENCAPSUL?
 L50 9 SEA ABB=ON PLU=ON L48 AND ?EDGE?
 L51 19 SEA ABB=ON PLU=ON L49 OR L50